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ABSTRACT

Two ways of communication in the problem solving process of evaluation are described. In Model I, the theory-in-use is governed by "win, de-emphasize negative feelings, and be rational." This leads to strategies of protect yourself, protect others, and control the situation and the task. These strategies result in mistrust, competitiveness, low risk-taking, and conformity which, in turn, produce ineffective problem-solving and resistance to change. In Model II, the theory-in-use is governed by "valid information, free and informed choice, and internal commitment to the choice." This leads to strategies of advocacy with inquiry, public testing of statements, and sharing power with all relevant actors. These strategies result in decrease in defensiveness, individual influence on decision, and shared control of task which, in turn, produce effective problem-solving and less resistance to change. Advantages of Model I are that the necessary communication skills are already developed and it may be as effective as any other when neither valid information nor non-threatening information are the desired end-products. Model II has the advantages of producing commitment to the evaluation by the decision maker, thus increasing the likelihood of utilization. (RL)

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EFFECTIVE PROBLEM SOLVING FOR EVALUATION UTILIZATION

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ABSTRACT

Effective Problem Solving for Evaluation Utilization

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This paper examines how communication within the evaluation process can enhance the utilization of evaluations. Drawing on the work of Chris Argyris, a theory of action perspective is used to provide a framework for understanding and predicting dysfunctional communication patterns and a model for effective communication patterns. The theory predicts that collaborative problem solving by decision maker and evaluator will be more effective and lead to increased commitment to the evaluation and higher utilization.

Effective Problem Solving for Evaluation Utilization

The growing conviction that evaluations are rarely used has become a widely discussed issue among evaluators. In the 1960s, evaluators thought that evaluation could become the key to sound, rational decision making. But these hopes have failed; and they have been replaced by prescriptions for "realism" and lowered expectations of influence on public policy. In response, a number of writers have sought to expand the definition of utilization to include uses that go beyond direct impact on decision making (Patton, 1977; Alkin, 1979; Dickey, 1981). This may make evaluators happier, but the primary goal of influence on policy remains elusive.

Studies testing factors thought to be related to utilization are fairly consistent in their findings: first, communication between evaluator and decision maker can be carried on in such a way as to increase the decision maker's interest in and commitment to the process and use of the evaluation; and second, barriers between the academic and the "real" world will be reduced if dissemination of evaluations is planned, timely, and appropriate to the audience (Weiss, 1977; Patton, 1977; Dickey, 1981). For several reasons, improved communication seems most likely to increase utilization. First, communication is the "front-end" issue in two senses. It arises at the beginning of the evaluation process, and at the most basic level communication is the essence of the process. Second, the

prescriptions for good communication are often presented in the literature in an ambiguous, complex and abstract way: "The evaluator should allay fears, motivate cooperation... and provide sufficient information to allow the program staff to understand what is happening" (Anderson, 1978). But just how does one effectively allay fears or motivate cooperation?

The major purpose of this paper, therefore, will be to examine how communication within the evaluation process can enhance evaluation utilization. A theory is needed to provide both a framework for understanding and predicting dysfunctional communication patterns and a model for effective communication patterns. This model can be used to understand the consequences of our usual patterns, prescribe new strategies, and predict consequences. The basis in theory will allow investigators to test the model and confirm or disconfirm its prescriptions. Since we agree with those who believe the atheoretical character of the present state of evaluation is limiting, we hope this paper will also serve the more general purpose of encouraging evaluators to consider theoretical frameworks from other fields that might advance their work.

In the following sections of this paper we explore communication in the evaluation process from a theory-of-action perspective, drawing on the work of Chris Argyris. His perspective provides a model for discovering error and inventing, producing, and generalizing more effective human behavior; behavior that we need in order to solve particular problems and to improve our general problem-solving ability.

The Context of the Evaluation Process

A final evaluation report seldom reveals the trials and tribulations of the evaluation process. Yet the credibility of the final report, and how it is perceived by different audiences, depends on the nature of that process. Evaluations, whether they are used to assess the overall effectiveness of a program, or to provide information to program managers for modification are by definition judgmental (Scriven, 1973). Judgment has awesome connotations, and it is not surprising that those who are being judged feel anxious, even threatened. Add to this the political context in which the process takes place, and there is always a political context, and we have the ingredients for dysfunctional communication -- high levels of stress leading to communication patterns arising from individual defense mechanisms.

It is not surprising that under these circumstances there is mistrust, competitiveness, conformity, and fear of taking risks. Fear of taking risks in meetings is indicated by a preponderance of statements that begin: "Yes, but...," which can be freely translated as "I don't agree with you." When people disagree but are afraid to say so, they find ways to de-emphasize their negative feelings. A common indicator of competitiveness is the comment: "Well, I think that the real problem is..." suggesting that no one else at the meeting has yet found the correct focus. Mistrust is often difficult to detect because people keep it to themselves. The fear of being discounted or even ignored keeps private thoughts private, even when they may be very important to finding a solution. Another

sign of mistrust is the proposal to "help" someone, offered with the intent (usually transparent) of checking up on him or her. One person may speak for another out of mistrust for that person's capacity to speak for him or herself. Conformity is so common it almost goes undetected. Not rocking the boat, after all, is cynical ancient wisdom.

Ineffective Problem Solving in the Evaluation Process

The evaluation process can be regarded as a series of problems to be solved: decisions about research focus, design, methods, analysis, interpretation, and dissemination. Argyris and Schön (1978) judge problem solving as effective to the extent that it fills three requirements:

1) The participants are aware of and understand the factors relevant to the problem.
2) The problems are solved in such a way that they remain solved, that is, they were solved within the constraints of time and other resources.
3) The first two are met without reducing or undermining the present level of problem-solving effectiveness.

Argyris and Schön (1978), studying problem solving and decision making by organizations under many conditions, find that the higher the stress, the less effective the problem solving. Problems solved ineffectively come back to haunt the people who produced the original solution. The following short examples illustrate ineffective problem solving. Case A is an example of a problem "solved" in a way that creates a larger problem.

CASE A: As a result of a congressional mandate to evaluate all projects funded under Title III of the Elementary and Secondary Education Act of 1965, an evaluator was hired to do one of these evaluations at a cost not to exceed 4% of the Title III project budget. Because the project budget was small (under $50,000), the evaluation budget was small -- too small to do much of an evaluation. But the evaluator had a way of stretching the dollars. He talked the project director into doing the data collecting, in this case the developing, reproducing, monitoring, and scoring of achievement tests. The evaluator referred to it as "involving" the decision maker. The project director saw it as a lot of work, but felt she had no choice since evaluation was required, and so she agreed. Ultimately, however, she described that evaluation as not very useful and disregarded the recommendations. Thus, the unilateral decision of the evaluator to "involve" the decision maker has solved the problem of insufficient funding (at least for the evaluator) but reduced the overall problem-solving effectiveness. All the participants were not aware of the factors relevant to the problem.

CASE B: An evaluation of a special program for pretrial investigators of juveniles was designed to include a random assignment of juveniles to the experimental program or to a control group that continued through the juvenile court system wihtout entering the program. The judge egreed to assign the juveniles alternately to the experimental group and the control group at the disposition hearing. After the program had been underway for some time, the evaluator discovered, quite by accident,

that the judge had not always carried out the random assignment as planned: from time to time, as he deemed it necessary, he had made exceptions. The exceptions had not been recorded and were now not distinguishable from the random assignments. A great deal of time and effort was lost as a result of a problem (how to carry out random assignments) solved ineffectively because one of the participants, the judge, did not understand one of the factors relevant to the problem.

Dysfunctional Communication that Leads to Ineffective Problem Solving

Before proposing a model that reduces defensiveness in communication, the values that underlie dysfunctional communication need to be made explicit. Argyris finds that individual behavior in a group setting can be seen as governed by a set of values and behavioral strategies he calls a theory-in-use. Individuals also have an espoused theory of action: the way they say they would behave under certain circumstances. The espoused theory is usually incompatible with the theory-in-use, and the individual may or may not be aware of the incompatibility (Argyris & Schön, 1978). In organizational meetings Argyris found that individuals' theories-in-use could be inferred from their behavior within the group. Most dysfunctional problem-solving theories-in-use were found to include the following elements: achieving the purpose as the individual sees it; winning and not losing; de-emphasizing the expression of negative feelings (one's own and those of others), and being rational even when the expression of feelings might be more appropriate. Argyris has observed behavior repeatedly in organizational

meetings where the norm was to:

- Protect yourself unilaterally -- by avoiding both direct interpersonal confrontation and public discussion of sensitive issues which might expose you to blame.
- Protect others unilaterally -- by avoiding the testing of assumptions where that testing might evoke negative feelings, and by keeping others from exposure to blame.
- Control the situation and the task -- by making up your mind about the problem and acting on your view, by keeping your view private, and by avoiding the public inquiry which might refute your view. (Argyris & Schön, 1978, p. 40)

The consequences of these behavioral strategies are dysfunctional group dynamics such as mistrust, competitiveness, conformity, and low risk-taking which eventually lead to the polarization of issues and ultimately to intergroup rivalries. Similar factors account for organizational resistance to change: reluctance to admit weaknesses, awkwardness and fear of failure associated with doing something new, bad experiences with past efforts to change, and concern about the loss of present satisfaction (Lippitt, et al., 1958). Thus, our theories-in-use lead to the very consequences that we say, in our espoused theories, that we want to avoid. This cycle of dysfunctional communication can be mapped as in Figure 1.

Insert Figure 1 about here

A meeting in which the communication pattern is based on theories-in-use similar to the one outlined in Figure 1 will be marked by ineffective problem solving and resistance to change, which will probably lead to another meeting based on these same theories-in-use and marked by increased competitiveness, polarization of issues, and resistance to change. Argyris (1974) calls this theory-in-use Model I. If these dynamics operate during evaluation the outcome will be dysfunctional communication, low commitment, loss of interest on the part of the decision maker, and a final report that, regardless of its methodological soundness, will not be seen as useful.

Effective Problem Solving in the Evaluation Process

Our suggestions are based on the belief that decision-maker commitment to the evaluation is a primary factor affecting utilization (Patton, et al., 1977; Dickey, 1981). Commitment, in turn, is the result of actions that allow the decision maker to share a high degree of control over the evaluation process. The model we present and the case illustrating that model are based on the assumption that the decision maker wants the "best" information and wants to use that information. It also assumes that the decision maker has no hidden agenda. This does not mean ignoring political, social, and financial pressures which lead to "uses" that are less than legitimate: for example, "to delay action, to avoid taking responsibility for a decision, to discredit an opponent or a disliked policy" (Weiss, 1977, p. 15). On the contrary, as we will see, one of the most useful things

about this model is that it unmasks hidden agendas early and permits discussion of the purposes of the evaluation to become part of the evaluation process.

In the following illustrative case, the evaluator assumes that the decision makers want a good evaluation and intend to use it for legitimate purposes. To assume otherwise would have set up an adversarial situation.

CASE C: A community mental health center is about to initiate a new program for chronic patients. The program is only funded to accommodate 15 patients, but the staff believe many more of the center's chronic patients might benefit from the program. The evaluator is asked to design an evaluation that will measure the program impact. Following the dictates of good evaluation practice, the evaluator seeks to identify the decision maker and learns that the primary decision maker is the center administrator responsible for broad programmatic decisions. In addition, there are two other important decision makers: the director of community-based care services, who reports to the primary decision maker, and the new program director, who reports to the director of community-based services. All three were involved in the planning and thus have a stake in the new program. For clarity, the latter two will be called "clinicians" hereafter, as their work brings them closer to direct services to clients.

At the meeting of these decision makers and the evaluator, the administrator of the center suggests random assignments of subjects into the program: he wants to know if the program really makes a difference. But the two clinicians bristle at the idea and argue instead that decisions about

who enters the program should be based on "clinical grounds." Anxious to see the program succeed, as well as provide most appropriate treatment, they would like to select the "better" patients for the new program. When the meeting adjourns the evaluator finds herself in the middle of a power struggle between clinicians providing direct service and an administrator who has broad policy and fiscal responsibility, and thus a somewhat different perspective.

This presents a difficult and not uncommon dilemma for the evaluator. One scenario for the problem solving in this case would be for the evaluator to work with all three decision makers to establish the relevant questions and then present to them the best possible design that brings data to bear on those questions. Recognizing the difference of opinion about sampling methods, she develops a strong rational argument for random assignment, and presents it carefully, making sure that the new program director and the clinicians understand the value of random sampling. The evaluator works hard to ensure that the meeting is both productive and amiable, since she believes that full agreement among all three is needed. She reassures all three decision makers that their contribution to the design is essential.

The likely consequences of this scenario have already been outlined earlier in this paper. She is trying to achieve the purpose as she sees it -- in this case to resolve the sampling problem in a way that produces the "best" information -- by de-emphasizing negative feelings and by stressing

rationality; Argyris would predict that this theory-in-use will lead to:

low Trust -- Clinicians think: "If our contribution is so "essential why is she ignoring our reasons for not wanting random sampling? No one wants to hear another point of view."

low risk-taking -- Clinicians think: "I have some serious doubts about this way of doing it, but I don't want to look stupid, especially in front of my boss."

competitiveness -- Clinicians think: "We lost this round, but we'll find a way to win the next one."

conformity -- Clinicians think: "Even if we don't like this, we had better give in gracefully because we don't want to appear threatened by this evaluation."

The sampling problem will probably continue to be a problem because it has not really been solved permanently. Those who must be counted on to implement the random assignment are not really committed to the plan, and we can foresee any number of ways in which their future actions -- or inactions -- can subtly undermine the plan.

Here is a second scenario for problem-solving in this case: The evaluator asks to meet with all three and outlines the dilemma as she sees it. She is in the middle and feels that, no matter what she comes up with, she'll be seen as taking sides. She wants to avoid this and suggests that they work together to solve the problem. There are several alternative courses of action she can take and she offers to spell them out, pointing out the advantages and disadvantages of each and asking

the other three to question her about them and to offer their own alternatives. The first alternative might be scenario #1 with predictable consequences. Secondly, she can develop a design in which patients are chosen on clinical grounds and there is no control group. This will ensure clinician cooperation and commitment but might risk losing certain types of information and possibly administrator cooperation and commitment. Finally, she can develop a series of sampling options based on her expertise and their suggestions outlining the strengths and weaknesses of each, and encouraging inquiry into each, and, after examining the alternatives, the group can mutually choose one.

In this scenario, the strategies are informed by a theory-in-use with these governing values:

- valid information
- free and informed choice
- internal commitment to the choice

This theory-in-use labeled Model II leads to strategies that "couple articulateness and advocacy with an invitation to others to confront one's views; to alter them in order to produce the position that is based on the most complete valid information possible and to which people involved can become internally committed" (Argyris & Schön, 1978, p. 138). As shown in Figure 2, it is predicted that these strategies will lead to more effective problem solving.

Insert Figure 2 about here

In the actual case the evaluator chose to implement the Model II scenario and the consequences seemed to justify her efforts. After some discussion, the decision makers asked the evaluator to draw up a list of all the sampling plans she thought were feasible, listing the advantages and disadvantages of each. The administrator agreed to accept the sampling plan chosen by the clinicians because he considered their cooperation essential. The clinicians ultimately chose random assignment because they felt it offered the most advantages and the fewest disadvantages. They did not have a methodological conversion experience; the decison was a pragmatic one: random assignment seemed the "fairest" method of selecting patients into the new program. Having made that free and informed choice, they agreed to take on the formidable job of convincing the primary caregiver of each patient in the pool of "potentials" that random assignment would be best. Because they understood the advantages and disadvantages of several sampling plans, they could advocate random assignment and encourage inquiry into their decision. That they were able to do this is a measure of the commitment they developed when this kind of evaluation-process decision making was used.

This second, more effective model demands that the evaluator give up unilateral control of the situation and the task, make public her opinions and encourage inquiry into them, test her own assumptions and risk personal confrontation and public discussion of sensitive issues. These actions should lead to: minimally defensive interpersonal relations and group

dynamics; situations where participants have individual influence on decisions; and evaluations that are jointly controlled (Argyris & Schön, 1978). It may at first appear that the evaluator is giving up control in a way that creates a risk to successful evaluation. This model suggests the contrary. The decisions are carefully considered by all parties, and then, when everyone is aware of the possible advantages and disadvantages (political as well as methodological) the decision makers and the evaluator can freely choose -- and share the responsibility for that choice. Evaluation activities that are collaboratively designed result in commitment: using a theory-of-action perspective to inform the problem solving aspects of the evaluation process produces commitment to the evaluation on the part of the decision maker.

Functional Communication that Leads to Effective Problem Solving

Early in this paper we described communication patterns that occur frequently in organizations observed by Argyris. The disadvantages of Model I communication are ineffective problem solving and resistance to change. There are some advantages of Model I: we have already developed the communication skills needed for Model I and it may be as effective as any other when valid information is not the desired end-product or when non-threatening information is the desired end-product.

However, when the desired end-product is valid information in potentially threatening situations, basing communication on Model II theory-in-use has the advantages of producing commitment to the evaluation on the part

of the decision maker, thus increasing the likelihood of utilization, and bringing to the surface organizational hidden agendas early in the evaluation process. If the decision maker wants an evaluation to substantiate decisions already made, for example, this should become apparent. This model is not without disadvantages for evaluators. It is time-consuming, especially for the evaluator who must advocate and be prepared to discuss the advantages and disadvantages of a feasible design. In addition to the evaluator's preparation time, we must allow time for the decision maker to suggest additional options, and then, working with the decision maker, for examining the advantages and disadvantages of these additional options. Because of the time needed we do not recommend this model be used for <u>every</u> decision. It is needed only for important decisions: who the final report is disseminated to, yes; what kind of paper it is printed on, no. Perhaps the most important disadvantage is that it is <u>very</u> difficult to give up unilateral control, to encourage testing of all your own opinions, and to take risks. Model I strategies are over learned and automatic while the collaborative decision making skills of Model II are new and require sustained effort to develop. In Case C above the evaluator spent a great deal of time learning and practicing Model II strategies. Argyris (1976) documents the difficulties of learning Model II skills. It is paradoxical that the self-sealing nature of Model I closes off opportunities to practice Model II behavior. A common reaction to advocacy of Model II is "It's a cruel manipulative world out there and the only way to survive is to play by the Model I rules." For those of you who believe this, we suggest that you take the risk of testing this assumption.

Case examples illustrating the disadvantages of Model I communication within organizations and the advantages of Model II problem solving have been drawn from real evaluation experiences. But these experiences, however useful they have been in illuminating this topic, are not sufficient to confirm the appropriateness of Model II problem solving in evaluation. Only continued systematic research will supply evidence confirming or disconfirming a relationship to higher rates of utilization and more effective problem solving. Argyris has drawn on systems theory to advocate a methodology for such research that takes into account that "the test of the theories of action lies in their effectiveness. This means that the discovery of a particular bit of validated information, which is the object of typical science, is not adequate... In research that attempts to inform us about effectiveness, the meaning of the parts depends on the 'whole' problem from which the parts were derived." (Argyris, 1976, p. 278). With this in mind, future research in this field would focus on the evaluation process, especially those "parts" that are related to communication about important decisions in the process as they fit within the larger context of evaluation effectiveness, i.e., utilization.

Summary

We offer our ideas in the form advocated by the model of problem solving presented: two ways of communication in the problem solving process of evaluation are described. The advantages and disadvantages of each

way is outlined and specific examples are used to illustrate the points made. The cases discussed represent commonly occurring events in evaluation, not rare events. This point is made to underline the frequency of ineffective problem solving.

This paper is only the first part of a dialogue needed to confirm or disconfirm the model put forth here. In keeping with Model II, the authors solicit other opinions and remain open to testing the approach advocated here.

Footnotes:

1) The authors wish to thank Professor Chris Argyris for his comments on an earlier draft of this paper.

2) At this next level down in the Center's hierarchy, there existed the potential for replicating scenario #1 and there were indications that had happened to some extent. However, the model the decision makers were exposed to may have helped avoid it by allowing illustrations and inquiry in the discussion of immediate caregivers' central concerns.

MODEL I

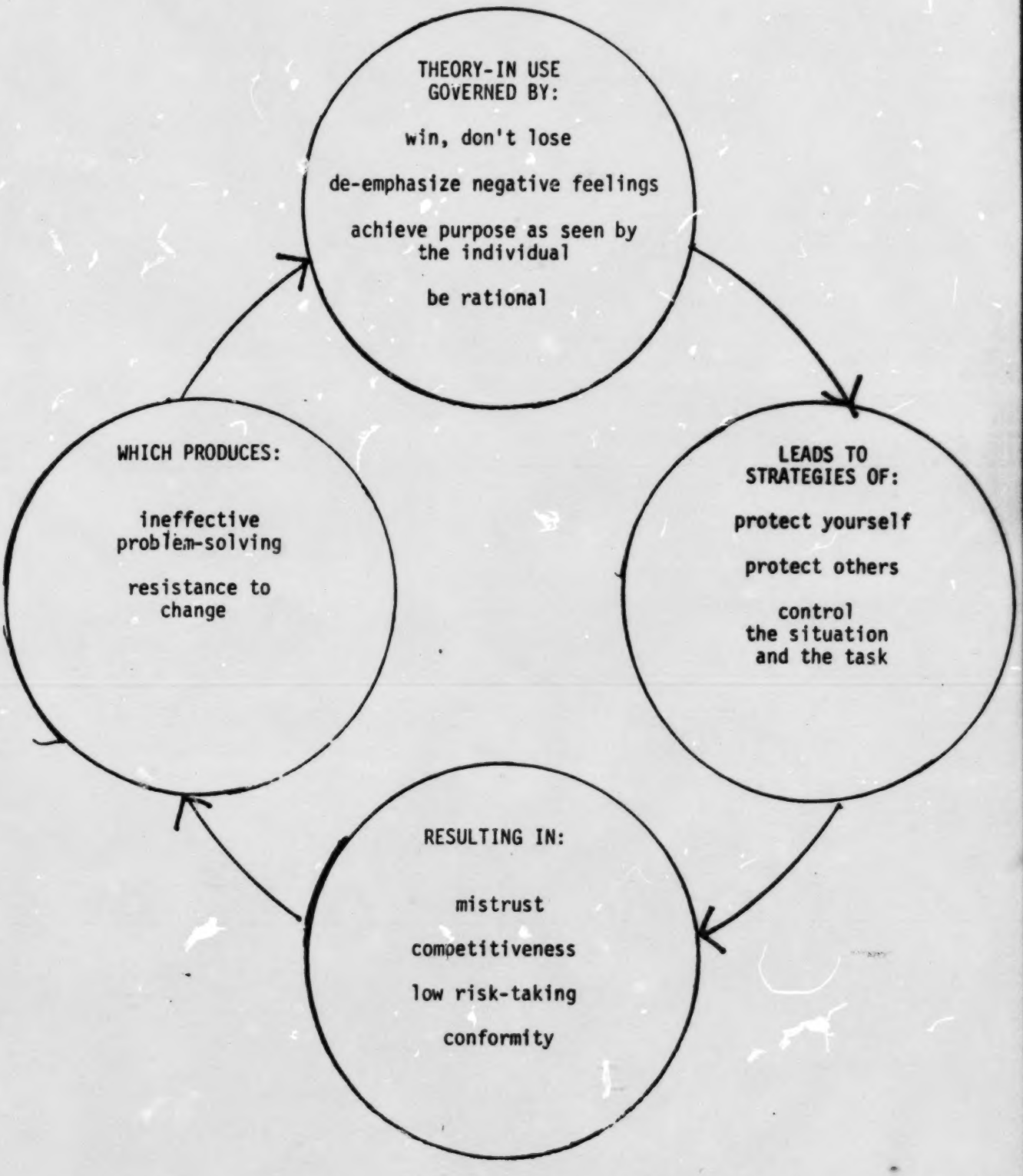

Figure 1

MODEL II

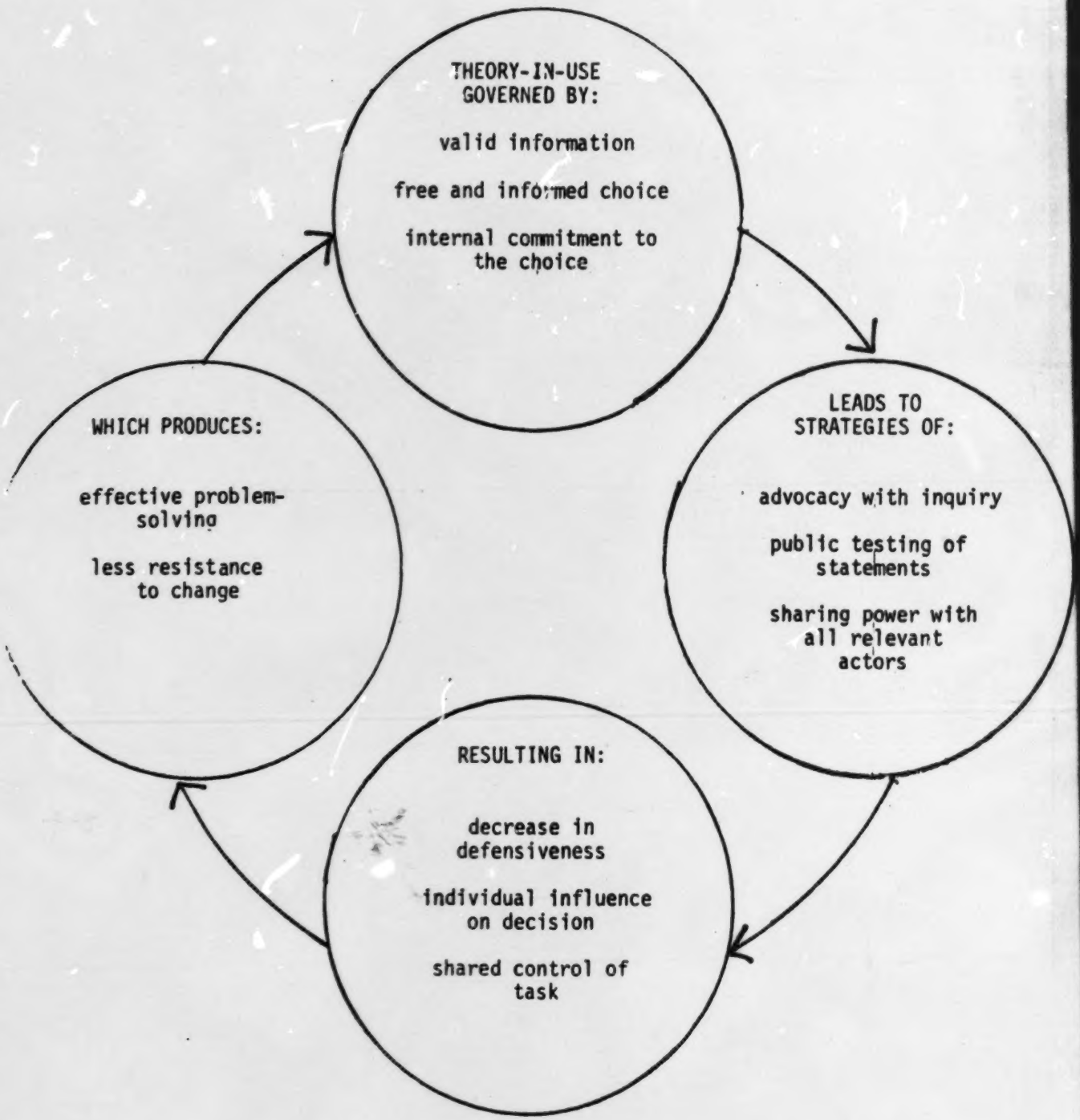

Figure 2

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